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(54) ELECTRODE FOR COATING

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(57) Abstract:

PURPOSE: To provide an electrode for electric spark coating giving a high hardness coating layer of a large thickness at a high rate by filling a pipe-shaped electrode with a selected material capable of being alloyed with the material of the electrode.

CONSTITUTION: A pipe-shaped electrode 1a made of WC-Co, Cr or the like is filled with a material capable of being alloyed with the material of the electrode as a core material 1b to form an electrode 1 for electric spark coating. The core material 1b may be carbon fibers and borax, W and Ni wires, a Ti wire and borax, an oxide such as Al_2O_3 , a nitride such as TiN, and a boride. While the electrode 1 and a body to be worked are relatively rotated or moved, pulse discharge is caused under vibration. The electrode materials are heated to a high temp., melt, mix and react well with each other, so they are alloyed. When the electrode is used, a high hardness alloyed coating layer of a large thickness is formed at a high rate.

